



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,901	06/24/2003	Alfio Fabrizi	FR920020082US1	2182

26502 7590 04/18/2006

IBM CORPORATION
IPLAW IQ0A/40-3
1701 NORTH STREET
ENDICOTT, NY 13760

EXAMINER

SAEED, USMAAN

ART UNIT	PAPER NUMBER
----------	--------------

2166

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/602,901	Applicant(s) FABRIZI ET AL.	
	Examiner Usmaan Saeed	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-18 are pending in this office action.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in EPO on 12/19/2002. It is noted, however, that applicant has not filed a certified copy of the 02368142.2 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, and 12-18 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. The language of the claims raises a question as to whether the claims are directed merely to an environment or machine which would result in a practical application producing a concrete useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Claims 1-9 and 12-18 are rejected because they are just identifying the actions to reconfigure the data processing system and these actions do not provide any tangible results.

To expedite a complete examination of the instant application the claims rejected under U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of application amending these claims to place them within the four categories of invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-7 and 9-18 are rejected under 35 U.S.C. 102(b) as being anticipated by **Lawlor et al. (Lawlor hereinafter)** (U.S. Patent No. 6,038,677).

With respect to claim 1, **Lawlor** teaches a method for configuring a data processing system for high availability, said method comprising the steps of:

“defining a set of rules for high availability” as the system tool described herein then automatically generates one or more resource groups using a set of

Art Unit: 2166

collocation "constraints" or rules (Lawlor Col 2, Lines 48-50). A resource group generated in this manner ensures effective fault-tolerant operation, and it is easy to maintain (Lawlor Col 2, Lines 54-56).

"defining a set of target parameters indicative of a target configuration of said data processing system which is highly available" as it is a primary object of the invention to provide an "automatic" mechanism to define resource groups in a high availability cluster network configuration. It is another principal object of the invention to generate and restructure resource groups without manual intervention by a system administrator (Lawlor Col 2, Lines 14-20). Examiner interprets resources for high availability network as target parameters.

"automatically collecting from said data processing system a set of existing parameters indicative of a current configuration of said data processing system" as these and other objects of the invention are provided by a mechanism that automatically generates and maintains resource groups for the cluster configuration. As used herein, the resource groups are said to be generated "automatically" because the system administrator preferably is not directly involved with defining what resources go within a particular resource group. Rather, the administrator merely identifies a set of resources that must be collocated with a given application in the event of a failure of a computer on which the application is then executing (Lawlor Col 2, Lines 39-48).

"automatically applying said rules with said target parameters to said existing parameters to identify actions to reconfigure said data processing system for high availability" as in response to any reconfiguration of a cluster-wide

Art Unit: 2166

resource, the tool evaluates whether the reconfiguration impacts any existing resource group. If so, the system administrator is notified to take corrective action, or such action may be effected automatically (**Lawlor** Col 2, Lines 56-61). The one or more resource groups are then generated, as noted above, using collocation rules and without direct input from the system administrator. Preferably, each resource group includes one or more of the plurality of applications and their related resources. Then, upon a given fault occurrence, the method transfers control of the resources of a resource group to a backup computer (**Lawlor** Col 3, Lines 6-12).

Claims 12 and 17 are essentially the same as claim 1 except they set forth the claimed invention as a computer program product and a system and are rejected for same reason as applied hereinabove.

With respect to claim 2, **Lawlor** teaches “**the method of claim 1 wherein said target parameters identify resources of said data processing system intended to be highly available**” as it is a primary object of the invention to provide an "automatic" mechanism to define resource groups in a high availability cluster network configuration. It is another principal object of the invention to generate and restructure resource groups without manual intervention by a system administrator (**Lawlor** Col 2, Lines 14-20).

Claim 14 is essentially the same as claim 2 except it sets forth the claimed invention as a computer program product and is rejected for same reason as applied hereinabove.

With respect to claim 3, **Lawlor** teaches “**the method of claim 2 wherein said step of defining said target parameters comprises the step of automatically querying a user to input said target parameters**” as FIG. 4 is a portion of a representative user interface for use by a system administrator to define a collocation of resources to be associated with a particular application (**Lawlor** Col 3, Lines 34-36).

Claim 15 is essentially the same as claim 3 except it sets forth the claimed invention as a computer program product and is rejected for same reason as applied hereinabove.

With respect to claim 4, **Lawlor** teaches “**the method of claim 1 wherein one of said target parameters is an identification of a library that should be mirrored**” as one or more resource groups are then generated, as noted above, using collocation rules and without direct input from the system administrator. Preferably, each resource group includes one or more of the plurality of applications and their related resources. Then, upon a given fault occurrence, the method transfers control of the resources of a resource group to a backup computer (**Lawlor** Col 3, Lines 6-12). Examiner interprets resource group as a library.

Claim 16 is essentially the same as claim 4 except it sets forth the claimed invention as a computer program product and is rejected for same reason as applied hereinabove.

With respect to claim 6, **Lawlor** teaches **"the method of claim 4 wherein said rules comprise a rule that objects which reside in said library and marked as old or obsolete should be deleted"** as in the above, it should be noted that a clone of a resource group is just another resource group with the same policies and user-supplied comments. The subroutine "Merge (rga,rgb)" referred to above has the effect of replacing all occurrences of the rgb by rga and deleting resource group rgb (**Lawlor** Col 8, Lines 37-42).

With respect to claim 7, **Lawlor** teaches **"the method of claim 4 wherein said rules comprise a rule that an operating system within said data processing system should support journalizing of said library"** as an IBM RISC System/6000 computer (a reduced instruction set of so-called RISC-based workstation) running the AIX (Advanced Interactive Executive Version 4.1 and above), or an Intel-based processor system running the Windows NT or OS/2.RTM. operating system. AIX OS is described in AIX Operating System Technical Reference, published by IBM Corporation, First Edition (November 1985), and other publications. While the above platform is useful, any other suitable hardware/operating system combinations may be

Art Unit: 2166

used. Thus, for example, suitable alternative machines include: an IBM-compatible PC 486 or higher running Novell UnixWare 2.0, an AT&T 3000 series running AT&T UNIX SVR4 MP-RAS Release 2.02 or greater, Data General AViiON series running DG/UX version 5.4R3.00 or greater, an HP9000/700 and 800 series running HP/UX 9.00 through HP/UX 9.05. Motorola 88K series running SVR4 version R40V4.2, a Sun SPARC series running Solaris 2.3 or 2.4, or a Sun SPARC series running SunOS 4.1.2 or 4.1.3 (**Lawlor** Col 4, Lines 19-44).

With respect to claim 9, **Lawlor** teaches **“the method of claim 6 further comprising the subsequent step of automatically deleting said objects marked as old or obsolete”** as in the above, it should be noted that a clone of a resource group is just another resource group with the same policies and user-supplied comments. The subroutine "Merge (rga,rgb)" referred to above has the effect of replacing all occurrences of the rgb by rga and deleting resource group rgb (**Lawlor** Col 8, Lines 37-42).

With respect to claim 10, **Lawlor** teaches **“the method of claim 1 further comprising the subsequent step of a user implementing the identified actions”** as in response to any reconfiguration of a cluster-wide resource, the tool evaluates whether the reconfiguration impacts any existing resource group. If so, the system administrator is notified to take corrective action, or such action may be effected automatically (**Lawlor** Col 2, Lines 56-61).

With respect to claim 11, **Lawlor** teaches “**the method of claim 1 further comprising the subsequent step of automatically implementing one or more of the identified actions**” as in response to any reconfiguration of a cluster-wide resource, the tool evaluates whether the reconfiguration impacts any existing resource group. If so, the system administrator is notified to take corrective action, or such action may be effected automatically (**Lawlor** Col 2, Lines 56-61).

With respect to claim 13 **Lawlor** teaches “**a computer program product as set forth in claim 12 further comprising fifth program instructions, executable at said server computer, for transferring said set of existing parameters to said client computer, and wherein said fifth program instructions are recorded on said medium**” as in response to any reconfiguration of a cluster-wide resource, the tool evaluates whether the reconfiguration impacts any existing resource group. If so, the system administrator is notified to take corrective action, or such action may be effected automatically (**Lawlor** Col 2, Lines 56-61 & Col 5, Lines 19-48).

Claim 18 is essentially the same as claim 13 except it sets forth the claimed invention as a system and is rejected for same reason as applied hereinabove.

Claim Rejections - 35 USC § 103

Art Unit: 2166

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lawlor et al.** (U.S. Patent No. 6,038,677) as applied to claims 1-4, 6-7 and 9-18 above in view of **Shell S. Simpson (Simpson hereinafter)** (U.S. Patent No. 6,606,162).

With respect to claim 5, **Lawlor** teaches “**the method of claim 4 wherein said rules comprise a rule that a print queue of said library should be audited**” as these and other objects of the invention are provided by a mechanism that automatically generates and maintains resource groups for the cluster configuration. As used herein, the resource groups are said to be generated “automatically” because the system administrator preferably is not directly involved with defining what resources go within a particular resource group. Rather, the administrator merely identifies a set of resources that must be collocated with a given application in the event of a failure of a computer on which the application is then executing (**Lawlor** Col 2, Lines 39-48).

Lawlor teaches elements of claim 5 as noted above but does not explicitly disclose “**print queues.**”

However, **Simpson** discloses “**print queues**” as a printer group is updated by making changes to the printers in the printer group and updating the printer group

Art Unit: 2166

database to reflect the changes. A change in the printer group database initiates a change in the print queues managed by the printer group client for printer group clients that subscribe to the updated printer group (**Simpson Abstract**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the cited references because **Simpson's** teachings would have allowed **Lawlor** to manage a set of print queues on the print clients device by auditing the print queue of the library.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lawlor et al.** (U.S. Patent No. 6,038,677) as applied to claims 1-4, 6-7 and 9-18 above in view of **Hunt et al.** (**Hunt** hereinafter) (U.S. Patent No. 6,606,162).

With respect to claim 8, **Lawlor** does not explicitly teaches “**the method of claim 7 wherein the identified action when said operating system does not support journalizing of said library is to upgrade to another operating system that supports said journalizing.**”

However, **Hunt** discloses traditional operating system function libraries is that individual functions cannot generally be modified without jeopardizing the operation of older versions of applications that might depend on the particular characteristics of the individual functions. Thus, when an operating system is upgraded it typically maintains all of the older functions so that older applications can still use the operating system (**Hunt Col 1, Lines 60-67**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of the cited references because **Hunt's** teachings would have allowed **Lawlor** to provide operating systems that are configured for use in distributed computing environments, and that can easily support legacy applications and versioning. It would have also provided ability to identify different versions of operating systems at a level that is lower than the operating system itself.

Conclusion

7. The prior art made of record and not replied upon is considered pertinent to applicant's disclosure is listed on 892 form.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usmaan Saeed whose telephone number is (571)272-4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2166

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Usmaan Saeed
Patent Examiner
Art Unit: 2166



Leslie Wong
Primary Examiner

US
April 13, 2006